

**U.S. DEPARTMENT OF ENERGY
NATIONAL NUCLEAR SECURITY ADMINISTRATION
NEVADA OPERATIONS OFFICE**

ORDER

NV O 452.1B

Approved: 04-15-02
Review Date: 04-15-04
Expires: 04-15-06

**NUCLEAR EXPLOSIVE AND WEAPON
SURETY PROGRAM**



**INITIATED BY:
National Security Support Division**

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1. OBJECTIVES.

- e. To supplement DOE O 452.1B, NUCLEAR EXPLOSIVE AND WEAPON SURETY PROGRAM, dated 8-6-01. This National Nuclear Security Administration Nevada Operations Office (NNSA/NV) Order does not change any requirements of the U.S. Department of Energy (DOE) Order but contains administrative or contractual guidance for NNSA/NV. In the case of a conflict between the DOE O 452.1B and this Order, the requirements of the DOE Order will have precedence.
- f. To provide guidance necessary to implement DOE O 452.1, NUCLEAR EXPLOSIVE AND WEAPON SURETY PROGRAM, requirements and to establish NNSA/NV policies, authorities, and responsibilities for the Nuclear Explosive and Weapon Surety (NEWS) Program conducted at the Nevada Test Site (NTS).

2. CANCELLATION. NV O 452.1A, NUCLEAR EXPLOSIVE AND WEAPON SURETY PROGRAM, dated 9-30-99. Cancellation of this Order does not, by itself, modify or otherwise affect any contractual obligation to comply with the Order. Canceled Orders that are incorporated by reference in a contract will remain in effect until the contract is modified to delete the reference to the requirements in the canceled Orders.

3. APPLICABILITY.

- d. The provisions of this Order applies to NNSA/NV, NNSA/NV contractors, and national laboratories engaged in the NEWS Program activities performed at the NTS and/or managed by NNSA/NV, including Damaged Nuclear Weapon activities.
- e. Contractor requirements are set forth in a Contractor Requirements Document, Attachment 1.

4. REQUIREMENTS.

- b. (1) In addition, the NNSA/NV NEWS Program will be governed by NV O 452.2B, SAFETY OF NUCLEAR EXPLOSIVE OPERATIONS.
- f. (2) (e) Inadvertent Criticality. The criticality safety of a nuclear explosive or test device must be evaluated by the design agency to document the

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intrinsic safety of the design in both normal and abnormal environments and ensures criticality safety. The documentation will be provided to the Nuclear Explosive Safety Study Group.

5. RESPONSIBILITIES.

- i. Manager. Is responsible for NTS NEWS Programs including:
 - (14) Assigning safety coordination authority for NTS nuclear explosive operations to the design laboratories.
 - (15) Appointing the DOE Test Controller.
 - (16) Approving the design laboratory appointed Test Director.
- m. The NNSA/NV Test Controller. Acts on behalf of the Manager to ensure that all NEWS Program requirements have been met prior to authorizing the design agency Test Director to detonate a nuclear test explosive.
- n. Director, Safeguards and Security Division.
 - (1) Provides the Manager with a written statement that all nuclear explosive operations are secured in accordance with the requirements of the 470 and 5630 series Orders and documented in the Site Safeguards and Security Plan.
 - (2) Ensures that the security of NEWS Programs meets the requirements of the fourth surety standard of DOE O 452.1B.
- o. Director, National Security Support Division (NSSD). Ensures that:
 - (1) Appraisals are conducted in accordance with DOE O 452.1B.
 - (2) Personnel conducting the appraisal are trained and qualified.
 - (3) A training and qualification program is developed for appraisal personnel.

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7. CONTACT. NSSD, (702) 295-1280.



Kathleen A. Carlson
Manager

CONTRACTOR REQUIREMENTS DOCUMENT

The sponsoring laboratory (either Los Alamos National Laboratory or Lawrence Livermore National Laboratory must:

6. Evaluate and document the assurance of criticality safety in the design of the nuclear explosive or test device for both normal and abnormal environments. Prepare for the Nuclear Explosive Safety Study Group a certification which documents the intrinsic safety of the design.
7. Nominate test director(s) for National Nuclear Security Administration Nevada Operations Office for approval.
8. Ensure for tooling and equipment that the initial layout design must preclude the possibility of the tooling or equipment from making unintended contact with or striking the high explosive.